DOCUMENT RESUME

ED 148 434 JC 780 054

AUTHOR Eagle, Norman
TITLE The Academic and Remedial Placement Profile of Students Entering B.C.C. in September, 1976 [and September 1977] by Curriculum Group. Research Report BCC 4-76 [and] 4-77.
INSTITUTION Bronx Community Coll., N.Y.
PUB DATE Dec 77
NOTE 66p.; Compiles two reports prepared in November 1976 and December 1977

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS *College Freshmen; College Majors; Community Colleges; *Enrollment Rate; Institutional Research; *Junior Colleges; *Remedial Courses; Remedial Mathematics; Remedial Reading; *Student Placement; Tables (Data)
IDENTIFIERS City University of New York Bronx Community Coll

ABSTRACT

Profiles of freshmen students entering Bronx Community College (BCC) in September, 1976 and September, 1977 are presented in terms of their academic and remedial placement. For both years, nearly 70% of those who took placement tests in the reading/English area and subsequently enrolled were recommended for at least one remedial course; 75% of 1976 freshmen and over half of 1977 freshmen who took mathematics placement tests were placed into remedial math. In terms of actual enrollment, 69% of 1976 matriculated students and 62% of 1977 matriculated students enrolled in one or more remedial reading/English courses, and 60% of 1976 matriculated students and 41% of 1977 matriculated students enrolled in remedial math. Both years showed an increase in the number of freshmen who took prescribed remedial courses, although a significant number of students continued to by-pass them. In addition, in both years BCC enrolled a markedly higher proportion of students with high school averages below 70% and with less scholastic preparation than those in other City University of New York colleges. The profiles for each year are discussed in detail and supplemented by tables. (LH)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED148434

BRONX COMMUNITY COLLEGE
of The City University of New York
"University Heights"
181st. Street & University Avenue
Bronx, N.Y. 10453

Research Report: BCC 4-76

The Academic and Remedial Placement Profile of Students Entering B.C.C. in September, 1976 by Curriculum Group

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Norman Eagle

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

November, 1976

OFFICE OF INSTITUTIONAL RESEARCH

Dr. Norman Eagle
Director

JC780 054

SUMMARY

1. Nearly three out of four students (.70) who took placement tests in the Reading-English area were recommended for at least one remedial course in this area, a slight decrease from the proportion recorded last year (.78), which was the highest since the beginning of open admissions.

2. Two out of three students who were examined for placement into mathematics, were placed into remedial mathematics courses, representing no change from last year.

3. In terms of actual enrollment in remedial courses, 69% of the matriculated students are actually enrolled in one of the remedial Reading-English courses. Last year 54% enrolled.

4. In mathematics 60% of the entering class enrolled in remedial courses, as compared with 27% last year. This has reversed a trend in remedial mathematics course enrollment, which had shown a decline in enrollment over the previous three years.

5. High school averages of students recommended to B.C.C. by the University Application Processing Center showed a moderate improvement over previous years, reflecting the new C.U.N.Y. entry standards. However, in terms of students actually enrolled, only a slight improvement is noted in high school English average, and no improvement in the mathematics average.

6. Compared with previous years, relatively fewer students are found to have enrolled in regular college courses without taking remedial courses to which they had been assigned. Never-the-less a significant number of students continue to by-pass remedial courses.

7. There is no significant relationship among curriculum groups between the proportion of students earning high school averages below 70% and the proportion enrolled in remedial courses. This is true for both the Reading-English and Mathematics areas.

8. As of the Fall of 1975, B.C.C. enrolled a markedly high proportion of students with high school averages belww 70%, than any other college in C.U.N.Y., and while the academic preparedness of this year's entering class is slightly better than last year, it is still probable that our current freshman class is less prepared scholastically than freshman classes at other C.U.N.Y. units.

NE:sb

The Academic and Remedial Placement Profile
of Students Entering B.C.C. in September, 1976
by Curriculum Group.

This report describes the B.C.C. class entering in September, 1976 in terms of high school averages (general, English, mathematics, foreign language) and placements into pre-college level English, reading, and mathematics courses. It also examines the actual programs of enrolled students placed into, though not registered in, these remedial courses.

REMEDIAL PLACEMENTS AND ENROLLMENTS

Table 1 shows the distribution of remedial placements into English, reading, and mathematics, for 16 curriculum areas.* However, these students, while having been assigned matriculation codes, may not have registered at B.C.C. Therefore, this table is of interest mainly in the comparison of the current group of students assigned to B.C.C., with groups assigned in previous years. Since September 1971, the proportions of students recommended for placement into remedial courses, but who may or may not have actually enrolled, are shown for the sixteen curriculum groups as follows:

---

*Numbered tables begin on page 13.

Trend in the proportion of students recommended for remedial placements (not necessarily registered), 1971-1976 (Fall Semesters).

	Reading-English						Mathematics					
	1971	1972	1973	1974	1975	1976	1971	1972	1973	1974	1975	1976
Business Accounting	.66	.81	.72	.72	.81	.64	.57	.51	.61	.32	.74	.57
Business Retail	.59	.60	.61	.63	.73	.51	.47	.50	.79	.17	.82	.67
Business Secretarial	.54	.74	.67	.77	.79	.83	.51	.51	.57	.38	.71	.55
Data Processing	.67	.79	.69	.76	.83	.71	.45	.40	.52	.31	.71	.49
Chemical Technology	.66	.84	-	.75	.84	-	.33	.52	-	.75	.79	-
Medical Lab Technology	.76	.68	.41	.73	.77	.78	.73	.62	.74	.76	.72	69
Plastics Technology	.71	.60	-	.57	-	-	.55	.73	-	.21	-	-
Mechanical Technology	.75	.76	.54	.63	.83	.88	.70	.56	.79	.45	.74	.78
Electrical Technology	.67	.74	.58	.72	.75	.75	.70	.62	.68	.39	.76	.55
Nursing	.68	.57	.42	.76	.78	.78	-	.01	.04	.66	.05	.81
Liberal Arts	.53	.69	.66	.78	.76	.72	.65	.64	.58	.27	.74	.60
Engineering Science	.71	.70	.43	.76	.78	.75	.56	.48	.58	.27	.64	.58
Business Administration	.66	.73	.70	.68	.76	.66	.66	.66	.71	.36	.78	.58
Pre-Pharmacy	.56	.66	.52	.74	.78	.86	.69	.43	.68	.23	.80	.65
Music & Perf. Arts	.41	.56	.50	.67	.64	.89	.29	.39	.25	.23	.81	.53
Education Associate	-	-	-	-	.85	.80	-	-	-	-	.84	.74
Other or Undecided	-	-	.55	.76	.76	.46	-	-	.44	.17	.68	.80
All Curriculums	.60	.72	.63	.74	.78	.70	.56	.54	.57	.37	.68	.64

The above table shows that, as was true last year, almost three out of four students applying to B.C.C. for Fall, 1976 admissions, who took placement tests in the Reading-English area, were recommended for at least one remedial course in this area. However, Table 1 shows that 33% were recommended for placement into both a remedial reading and a remedial English (writing) course, a decline from last year of 9 percentage points, and from 1974, of 10 percentage points. Taken together with the decrease in the proportions of students requiring remediation in either English or reading (8% from last year, 4% from 1974), this appears to be evidence of a very slight improvement in the verbal ability

of students (as indicated by school averages) assigned to B.C.C., compared to the Fall, 1974 and Fall, 1975 groups assigned to the College. This very slight improvement over last year is also seen in the mathematics area. Never-the-less, proportions in both areas are higher, in general, than those during the early open admission years, 1971-73.

Actual enrollments in remedial courses are shown in Table 2. It can be seen that 69% of the matriculated students are actually enrolled in one of the remedial English-Reading courses, almost exactly the proportion placed. In mathematics 60% are seen to be actually enrolled in one of the remedial courses (compared to the 64% placed). The total remedial English-Reading enrollment proportion for the Fall 1976 entering class is markedly higher (15%) than the proportions for the classes entering in the Fall of 1974 and 1975. In mathematics, the proportion of students enrolled in remedial courses (60%) shows a 100% rise over the 28%-30% levels which prevailed during the two previous years.

If the mean proportion, plus and minus .05, is taken as the "average" range of proportions across all curriculum groups, the groupings on page 4 show which curricula fall within this "average" range, and which are higher or lower (excluding chemical technology and plastics technology because of inadequate size).

Comparing these groupings with those of last year, it is again seen that this year's mean is fifteen percentage points higher, indicating a significant increase in the proportion of students enrolled in remedial English or reading courses.

Over the five entering classes since the Fall of 1972, the proportions of students in the various curricula enrolled in one or more remedial Reading-English

Distribution of curriculum areas according to proportions of students enrolled in remedial Reading-English.

$< .64$	Mean $p \pm .05$ $.64 - .74$	$> .74$
Business Accounting (.61)	Nursing (.74)*	Business Retail (.79)
	Music & P.A. (.73)	Ed. Associate (.77)
	Med. Lab. Tech. (.72)	Business Secretarial (.77)
	Mechanical Tech. (.72)	
	Engineering Sci. (.70)	
	Pre-Pharmacy (.69)	
	Business Adm. (.66)	
	Liberal Arts (.66)	
	Electrical Tech. (.65)	
	Data Processing (.64)	

courses are shown in the table on page 5 (excluding curriculums of inadequate size).

Intercorrelating the five columns in the table yields a Coefficient of Concordance (W) of .25 indicating only a weak consistency in the proportions of remedial Reading-English enrollments among curricula, from 1972 to 1976.

In mathematics, Table 2 shows that 60% of all matriculated students are enrolled in one of the two remedial mathematics courses. This compares with 29% of matriculated students enrolled last year, and with 32% in the Fall of 1973. A very marked increase (about 100%) is seen over the two previous entering Fall classes.

* No student requiring remediation in any area is permitted to enroll in any of the Nursing courses per se. These students are actually classified as pre-Nursing.

Proportions of students enrolled in remedial Reading-English since 1972.

Curriculum	1972	1973	1974	1975	1976
Business Accounting	.58	.50	.43	.64	.61
Business Retail	.32	.50	.51	.51	.79
Business Secretarial	.57	.54	.46	.62	.77
Data Processing	.63	.64	.55	.66	.64
Medical Lab. Technology	.50	.36	.57	.57	.72
Mechanical Technology	.64	.44	.47	.49	.72
Electrical Technology	.52	.38	.48	.56	.65
Nursing	.45	.36	.70	.60	.74
Liberal Arts	.55	.50	.43	.47	.66
Engineering Science	.50	.33	.39	.61	.70
Business Administration	.49	.56	.45	.46	.66
Pre-Pharmacy	.40	.44	.45	.57	.69
Music & Perf. Arts	.44	.33	.39	-	.73
Education Associate	-	-	-	.50	.77

If the curriculum groups are sorted into three groups (average, below average, above average) as was done for the Reading-English enrollments above, the groupings on Page 6 emerge for enrollments in remedial mathematics courses.

During the period 1972-1975 it was observed that all of the curriculums in the "above average" group (curriculums having higher than "average" proportions of remedial enrollments) were technical in nature, and it was thought that this reflected more stringent requirements in these areas. This year, however, it is seen that every curriculum group (with two exceptions) has enrolled a higher proportion of students in a remedial mathematics course than was enrolled last year by the curriculum showing the maximum proportion of enrollments (Engineering Science - .54).

Distribution of curriculum areas according to proportions of students enrolled in remedial Mathematics

< .55	Mean ± .05 .55 - .65	> .65
Business Secretarial (.50)	Music & P.A. (.55)	Business Retail (.67)
Business Accounting (.53)	Data Processing (.57)	Electrical Tech (.71)
	Mechanical Tech (.58)	
	Engineering Sci (.59)	
	Education Assoc (.59)	
	Business Ad (.62)	
	Nursing (.62)	
	Liberal Arts (.63)	
	Med Lab Tech (.64)	

Proportions of students enrolled in remedial Mathematics since 1972.

Curriculum	1972	1973	1974	1975	1976
Business Accounting	.52	.37	.30	.24	.53
Business Retail	.23	.46	.24	.25	.67
Business Secretarial	.35	.17	.24	.11	.50
Data Processing	.33	.40	.34	.25	.57
Chemical Technology	-	-	-	.32	-
Medical Lab Technology	.57	.62	.60	.52	.64
Mechanical Technology	.56	.72	.48	.49	.58
Electrical Technology	.60	.69	.53	.50	.71
Nursing	.03	.25	.47	.16	.62
Liberal Arts	.44	.39	.25	.28	.63
Engineering Science	.52	.55	.54	.54	.59
Business Adiministration	.48	.41	.33	.21	.62
Pre-Pharmacy	.43	.58	.53	.53	.74
Education Associate	-	-	-	.30	.59

In the above table it may be seen that some of the Curriculum groups have enrolled two, three and even four times as many (proportionately) students in remedial mathematics courses as compared with last year.

Intercorrelating the five columns above yields a Coefficient of Concordance (W) of .64, indicating a modestely strong degree of consistency in the proportions of remedial mathematics enrollments among curricula, from 1972 to 1976.

PLACEMENT-ENROLLMENT DISCREPANCIES

While there are at least 1,700 entering matriculated students who are enrolled in some kind of remedial course, there is still a large number of entering matriculated students who were placed into remedial courses, but who took college level courses without taking the remedial courses assigned. The extent of this phenomenon is shown in Table 3. This table shows, for example, that of 535 students who were placed into either a remedial English or remedial reading course or both, 26 enrolled in History 11 or 12, 24 in Psychology or Sociology (11), and 80 enrolled in English 13, without taking the remedial course assigned. (These are not mutually exclusive students, that is, a student with the kind of remediation need specified could be enrolled in more than one college-level course.) It is seen that 27 students who should have been excluded from English 13 for failing to meet entry level writing requirements were, in fact, enrolled in the college-level English course, about the same number as last year. In mathematics, only 10 students requiring a remedial mathematics course actually enrolled in a college-level mathematics course. Last year 27 such students were identified. In general, the number of students not taking remedial courses required, but taking related college level courses has markedly declined in comparison with last year.

The large number of students requiring remediation who were nonetheless enrolled in college-level courses over recent years resulted in a study designed to follow up the success or failure of these students in their college-level courses. This study, not designed to evaluate the effectiveness of remedial programs, found that even without remediation significant proportions of students earn grades of C or higher in some college level courses, while other courses appear to be more difficult.

HIGH SCHOOL AVERAGES

The proportions of students at five levels of three-year high school averages, for general average, English, mathematics and foreign languages, are

shown in Tables 4-7. Only English and mathematics will be subjected to further analysis in this report.

When the curriculum groups are distributed among the three classification categories as used above for enrollments in remedial Reading-English and in remedial mathematics courses, the following groupings from Table 5 occur for the proportions of three year English averages below 70% (excluding curriculum groups of inadequate size):

Distribution of curriculum areas according to proportions of students earning high school averages less than 70% in English.
(Registered Freshmen)

$< .26$	Mean $p \pm .05$ $.26 - .36$	$> .36$
Nursing (.11)	Data Processing (.29)	Mechanical Tech (.44)
Education Assoc. (.21)	Med. Lab Tech (.29)	Business Retail (.46)
Electrical Tech (.22)	Engineering Sci (.29)	
Business Secretarial (.22)	Business Accounting (.31)	
Business Admin (.23)	Liberal Arts & Sci (.34)	
	Music & Perf Arts (.34)	
	Pre-Pharmacy (.35)	

It may be seen that the over all proportion of enrolled new students with high school averages in English below 70% is somewhat lower (.31) than the proportions for last year's entering class (.38), and for the Fall, 1974 entering class (.36), reflecting the more rigorous entry requirements in force this year. For the fourth consecutive year, the Business Secretarial and Nursing curriculum

groups continue to show lower than average proportions, while the Mechanical Technology and Business Retail groups continue to show higher than average proportions.

As has been true in previous years, there appears to be no relationship among curriculum groups, between the proportions of registered students earning high school averages below 70% in English, and the proportions of students enrolled in remedial English or Reading courses. The actual correlation is -0.01.

With regard to high school mathematics, the following groupings of curricula, for proportions of averages below 70%, are taken from Table 6 (excluding curriculum groups of inadequate size):

Distribution of curriculum areas according to proportions of students earning high school averages less than 70% in mathematics. (Registered Freshmen)

$< .48$	Mean p $\pm$ .05 .48 - .58	$> .58$
Engineering Science (.32)	Electrical Tech (.48)	Business Retail (.62)
Nursing (.36)	Data Processing (.51)	Mechanical Tech (.70)
Business Secretarial (.44)	Education Assoc (.57)	Music & Perf. Arts (.77)
Med. Lab Tech (.44)	Pre-Pharmacy (.58)	
Business Admin. (.44)	Liberal Arts & Sci (.58)	
Business Accounting (.46)		

Over all curriculum areas it can be seen that whereas 53% of all enrolled entering freshman students received high school mathematics grades below 70% (Table 6), 64% of all registered matriculated students were placed into remedial mathematics courses (Table 1), while 60% are seen to be actually enrolled in such classes (Table 2). By contrast, last year's entering class showed that

the proportion of students enrolled in remedial classes was much lower than the proportion placed into such classes, or the proportion earning mathematics high school averages below 70%.

The correlation, among curriculum groups, between the proportions of students earning high school averages less than 70%, and the proportions of students enrolled in remedial mathematics courses, is -0.01 (coincidentally identical to the coefficient reported for English). There is, therefore, no relationship between the proportion of students within curriculum groups earning high school mathematics averages below 70%, and the proportion of students enrolling in remedial mathematics courses.

Table 8 shows the proportions of students recommended to B.C.C. by the University Applications Processing Center (U.A.P.C.) with three year high school averages below 70% in three academic areas, as well as the three year general average. It may be seen that, compared with previous years, there has been a significant decrease in the proportions assigned to B.C.C. in all four categories. Doubtless this reflects the more stringent entrance requirements imposed this year.

Despite the improvement in the mathematics average of students recommended by the U.A.P.C. to B.C.C.(in terms of the proportion earning less than 70% in high school), the average of the students actually enrolled at B.C.C. has not changed since last year, in contrast to the situation in the English area, where the higher English average of the students recommended to B.C.C. by the U.A.P.C. has been translated into a higher English average for enrolled students. However, this slight improvement in the academic "quality" of students enrolled at B.C.C. this year should not obscure the fact that for the entire period of open admissions this college has consistently enrolled the highest proportion of academically underprepared students of any college in C.U.N.Y., with only few scattered exceptions throughout the period. It is

still possible, therefore, that despite this slight improvement in the academic preparedness of our students this year, B.C.C. may continue to receive and enroll much higher proportions of underprepared students than all other C.U.N.Y. units.

Table 1. Distribution of Remedial Placements in English, Reading, and Mathematics by Curriculum (matriculated students who may or may not have registered at B.C.C.)*

(Numbers are percents)

Curriculums	ENG 01 only	ENG 02 only	RDL 01 only	RDL 02 only	ENG 01/02 & RDL 01/02	MTH 05	MTH 06	OTHER	Total (Unique) N
Bus. Acctg.	2	8	13	15	26	48	9	14	133
Bus. Retail	0	6	0	17	28	56	11	17	18
Bus. Sec'l.	3	8	9	22	41	53	2	5	186
Data Proc.	0	1	9	18	43	46	3	16	68
Chem. Tech.	-	-	-	- -	-	-	-	-	- -
Med.Lab.Tech.	6	7	11	20	34	57	12	10	155
Plastics Tech.	-	-	-	-	-	-	-	-	-
Mech. Tech.	7	11	15	7	48	59	19	0	27
Electric Tech.	2	5	13	10	45	40	15	11	87
Nursing	3	4	7	20	44	80	1	3	163
Liberal Arts	6	7	11	16	32	51	9	10	639
Engin'g.Sci.	7	4	13	16	35	39	19	12	75
Bus. Adm.	3	4	9	25	25	51	7	18	67
Pre-Pharmacy	9	12	18	15	32	44	21	6	34
Music & P.A.	0	6	12	18	53	53	0	6	17
Edu. Assoc.	5	6	6	8	55	62	12	6	66
Undecided/ Other	5	5	9	10	17	73	7	9	335
All Curriculums									
N	94	123	211	330	682	1168	174	190	2071
P	5	6	10	16	33	56	8	9	

* Students may enter into both Mathematics and English-Reading statistics.

Table 2. Distribution of Remedial Enrollments in English, Reading, and Mathematics by curriculum, for entering matriculated students.*

(Numbers are percents)

Curriculums	ENG 01 only	ENG 02 only	RDL 01 only	RDL 02 only	ENG 01/02 & RDL 01/02	MTH 05	MTH 06	OTHER	Total (Unique) N
Bus. Acctg.	5	10	11	11	21	45	8	22	200
Bus. Retail	19	7	4	19	30	63	4	7	27
Bus. Sec'l.	7	8	15	18	29	49	1	13	231
Data Proc.	3	8	7	16	30	54	3	16	96
Chem. Tech.	-	-	-	-	-	-	-	-	-
Med.Lab.Tech.	7	7	12	20	26	55	9	12	215
Plastics Tech.	-	-	-	-	-	-	-	-	-
Mech. Tech.	11	14	8	11	28	44	14	8	36
Electric Tech.	10	6	15	9	25	56	15	11	110
Nursing	9	7	12	23	23	61	1	12	176
Liberal Arts	8	10	10	15	23	54	9	15	874
Engin'g.Sci.	10	6	12	20	22	43	16	14	101
Bus. Adm.	7	5	8	23	23	57	5	18	120
Pre-Pharmacy	12	14	17	5	21	35	19	7	42
Music & P.A.	18	0	14	14	27	55	0	14	22
Edu. Assoc.	10	8	13	8	38	53	6	10	77
Undecided/ Other	14	8	15	6	40	55	5	8	715
All Curriculums N	213	219	289	384	662	1354	186	352	2544#
P	8	9	11	15	26	53	7	14	

*Students may enter into both Mathematics and English-Reading statistics.

#Total is larger than total in Table 1 because this table includes students who may not have taken placement examinations.

Table 3. Students placed into, but not taking remedial courses; and some courses they are taking.

	RDL 01 (45)	RDL 02 (115)	ENG 01 (19)	ENG 02 (27)	Any ENG any RDL (329)	TOTAL (535)	MTH 05 (275)	MTH 06 (54)	TOTAL (329)
ACC 11	3	8	0	2	1	14	3	3	5
BIO 11	0	2	0	4	3	9	2	1	3
18	0	1	0	0	0	1	0	0	0
BUS 11	0	3	0	2	3	8	15	2	17
CMS 11	12	28	4	16	79	139	98	21	119
CHM 11	0	0	1	0	0	1	1	2	3
ECO 11	0	0	0	0	2	2	3	2	5
ELC 11	0	0	0	1	2	3	1	0	1
ENG 13	18	35	6	8	13	80	57	16	73
FRN 11	0	1	0	0	1	2	3	0	3
HIS 11	0	1	1	2	2	6	5	2	7
12	1	6	2	3	8	20	13	5	18
MTH 11	1	0	0	1	6	8	0	1	1
16	1	0	0	1	1	3	2	1	3
17	0	0	0	0	5	5	1	0	1
30	2	3	1	2	3	11	1	4	5
MEC 11	0	1	0	2	4	7	0	1	1
PLS 11	0	0	0	0	0	0	0	0	0
POL 11	0	0	1	1	0	2	1	0	1
SOC 11	6	9	2	3	12	32	25	7	32
PSY 11	4	7	0	3	12	26	24	9	33
SPN 11	1	5	2	4	17	29	13	4	17
OTHER	116	185	68	70	760	1199	798	127	925
TOTAL*	165	295	88	125	934	1607	1066	207	1273

*Students may be enrolled in more than one regular course. The N for unique students is shown in parenthesis after remedial course designation.

Table 4. Distribution of 3 Year High School General Averages for September, 1976 Registered Freshmen (Matrics and Non Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	211	8	.04	24	.13	86	.47	53	.29	13	.07	27
Business Retail	27	2	.08	4	.17	14	.58	3	.13	1	.04	3
Business Secretarial	242	14	.06	18	.08	77	.34	75	.33	44	.19	14
Data Processing	98	5	.06	12	.14	28	.34	30	.36	8	.10	15
Chemical Technology	-	-	-	-	-	-	-	-	-	-	-	-
Medical Lab Tech	223	15	.08	16	.08	97	.49	47	.24	23	.12	25
Plastics Technology	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical Tech.	36	3	.09	6	.19	17	.53	6	.19	-	-	4
Electrical Tech.	113	6	.06	13	.13	48	.47	23	.22	13	.13	10
Nursing	189	13	.08	17	.10	67	.39	54	.32	19	.11	19
Liberal Arts & Sci.	908	57	.07	121	.15	417	.53	161	.20	32	.04	120
Engineering Science	105	3	.03	13	.14	46	.51	22	.24	7	.08	14
Business Adm.	125	7	.07	12	.11	49	.46	29	.27	10	.09	18
Pre-Pharmacy	42	1	.02	4	.10	23	.56	8	.20	5	.12	1
Music & Perf. Arts	24	4	.17	3	.13	13	.57	3	.13	-	-	1
Education Associate	82	5	.07	10	.13	34	.45	17	.22	10	.13	6
Undecided or Other	380	57	.33	100	.58	5	.03	3	.02	7	.04	208
All Curriculums	2807	200	.09	373	.16	1021	.44	535	.23	193	.08	485

Table 5. Distribution of 3 Year High School English Averages for September, 1976 Registered Freshmen (Matrics and Non-Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	211	6	.03	49	.28	48	.27	43	.25	29	.17	36
Business Retail	27	3	.13	8	.33	6	.25	4	.17	3	.13	3
Business Secretarial	242	5	.02	43	.20	39	.18	58	.27	69	.32	28
Data Processing	98	7	.09	16	.20	13	.16	31	.39	12	.15	19
Chemical Technology	-	-	-	-	-	-	-	-	-	-	-	-
Medical Lab Tech	223	7	.04	48	.25	55	.28	52	.27	31	.16	30
Plastics Technology	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical Tech.	36	2	.06	12	.38	10	.31	6	.19	2	.06	4
Electrical Tech.	113	6	.06	16	.16	33	.33	27	.27	17	.17	14
Nursing	189	1	.01	14	.10	57	.39	41	.28	34	.23	42
Liberal Arts & Sci.	908	47	.06	212	.28	213	.28	184	.24	106	.14	146
Engineering Science	105	6	.07	19	.22	29	.33	23	.26	11	.13	17
Business Adm.	125	5	.05	18	.18	32	.32	29	.29	16	.16	25
Pre-Pharmacy	42	4	.10	10	.25	15	.38	6	.15	5	.13	2
Music & Perf. Arts	24	2	.10	5	.24	8	.38	2	.10	4	.19	3
Education Associate	82	2	.03	13	.18	25	.34	14	.19	19	.26	9
Undecided or Other	380	35	.21	80	.48	30	.18	12	.07	10	.06	213
All Curriculums	2807	138	.06	563	.25	613	.28	533	.24	368	.17	592

Table 6. Distribution of 3 Year High School Mathematics Averages for September, 1976 Registered Freshmen (Matrics and Non-Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	211	20	.19	29	.27	18	.17	28	.26	13	.12	103
Business Retail	27	4	.31	4	.31	2	.15	1	.08	2	.15	14
Business Secretarial	242	33	.22	33	.22	29	.20	25	.17	27	.18	95
Data Processing	98	20	.36	8	.15	13	.24	7	.13	7	.13	43
Chemical Technology	-	-	-	-	-	-	-	-	-	-	-	-
Medical Lab Tech	223	34	.27	21	.17	32	.26	23	.19	14	.11	99
Plastics Technology	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical Tech.	36	6	.35	6	.35	2	.12	3	.18	-	-	19
Electrical Tech.	113	16	.24	16	.24	18	.27	7	.10	10	.15	46
Nursing	189	24	.21	17	.15	28	.25	18	.16	25	.22	77
Liberal Arts & Sci.	908	137	.30	129	.28	105	.23	58	.13	32	.07	447
Engineering Science	105	9	.16	9	.16	15	.27	12	.21	11	.20	49
Business Adm.	125	16	.27	10	.17	13	.22	10	.17	10	.17	66
Pre-Pharmacy	42	6	.32	5	.26	4	.21	2	.11	2	.11	23
Music & Perf. Arts	24	8	.62	2	.15	1	.08	1	.08	1	.08	11
Education Associate	82	17	.40	7	.17	6	.14	6	.14	6	.14	40
Undecided or Other	380	58	.50	42	.36	12	.10	-	-	5	.04	263
All Curriculums	2807	408	.29	338	.24	298	.21	201	.14	166	.12	1396

Table 7. Distribution of 3 Year High School Foreign Language Averages for September, 1976 Registered Freshmen (Matrics and Non-Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	211	12	.12	22	.22	24	.24	17	.17	27	.26	109
Business Retail	27	3	.20	3	.20	3	.20	3	.20	3	.20	12
Business Secretarial	242	6	.04	24	.15	21	.13	29	.18	77	.49	85
Data Processing	98	8	.15	9	.17	9	.17	14	.26	14	.26	44
Chemical Technology	-	-	-	-	-	-	-	-	-	-	-	-
Medical Lab Tech	223	19	.17	19	.17	14	.13	21	.19	39	.35	111
Plastics Technology	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical Tech.	36	3	.30	1	.10	1	.10	3	.30	2	.20	26
Electrical Tech.	113	12	.21	7	.12	10	.17	12	.21	17	.29	55
Nursing	189	11	.10	23	.21	19	.17	19	.17	37	.34	80
Liberal Arts & Sci.	908	95	.21	103	.23	94	.21	74	.16	83	.18	459
Engineering Science	105	10	.21	8	.17	7	.15	14	.30	8	.17	58
Business Adm.	125	11	.19	6	.10	12	.20	12	.20	18	.31	66
Pre-Pharmacy	42	2	.12	3	.18	3	.18	2	.12	7	.41	25
Music & Perf. Arts	24	4	.29	3	.21	3	.21	2	.14	2	.14	10
Education Associate	82	4	.09	8	.19	5	.12	11	.26	15	.35	39
Undecided or Other	380	47	.42	31	.28	15	.13	8	.07	11	.10	268
All Curriculums	2807	247	.18	270	.20	240	.18	242	.18	361	.27	1447

Table 8. Comparisons of proportions of high school averages below 70% for students recommended to B.C.C. by the University Applications Processing Center, September 1971 to September 1976.

	1971	1972	1973	1974	1975	1976
3 year General Average	.47	.38	.39	.45	.43	.22
3 year English Average	.32	.27	.30	.37	.37	.27
3 year Mathematics Average	.61	.59	.56	.54	.51	.47
3 year Foreign Language Average	.45	.43	.42	.41	.38	.34

BRONX COMMUNITY COLLEGE
of The City University of New York
"University Heights"
181st. Street & University Avenue
Bronx, N.Y. 10453

Research Report: BCC 4-77

The Academic and Remedial Placement Profile of Students Entering B.C.C. in September 1977, by Curriculum Group

December, 1977

OFFICE OF INSTITUTIONAL RESEARCH

Dr. Norman Eagle, Director

The Academic and Remedial Placement Profile of Students Entering B.C.C. in September 1977 by Curriculum Group

Office of Institutional Research
December, 1977

SUMMARY

1. As was true last year, nearly three out of four students with identifiable student numbers applying to B.C.C. for Fall, 1977 admission, who subsequently enrolled at the College, were recommended for at least one remedial course in reading or English.

2. In mathematics, considerably more than half of the students taking placement examinations in mathematics, and who actually enrolled in the College with identifiable student numbers, were placed into remedial courses. The actual proportion could be as high as .75 or higher. (See text for explanation of vagueness.)

3. In terms of actual enrollment, 62% of the entering class registered in one or more remedial reading or English courses, while 41% registered in a remedial mathematics course. In both cases a decline from the Fall, 1976 proportions is seen.

4. The proportion of students recommended to B.C.C. by the U.A.P.C., having high school general averages less than 70%, has increased from .22 in 1976 to .26 this year. Never-the-less, this continues to represent an improvement over the situation existing between 1971 and 1975 when the proportions were generally above .40.

5. Twenty-two percent of the enrolled freshmen have high school English averages less than 70%, while 56% have high school mathematics averages less than 70%.

6. While some students continue to take substantive, regular, college level courses (i.e., history, English, sociology) without first taking prescribed remedial courses, the situation has improved considerably over that which existed a few years ago.

7. Some curriculum areas having relatively high proportions of students with low mathematics averages are seen to enroll relatively low proportions of students in remedial mathematics courses. No explanation is evident.

8. While the academic preparedness of students assigned by U.A.P.C. has improved somewhat since the Fall of 1975, very substantial proportions of entering students continue to require remediation. Additionally, it is not yet clear whether there has been any change in the situation, reported in other Institutional Research documents, which has seen B.C.C. enroll higher proportions of underprepared students than any other C.U.N.Y. unit. Board of Higher Education enrollment statistics for the Spring, 1977 semester suggest there is a possibility that this situation may be about to change, and that a greater balance among C.U.N.Y. units in proportions of underprepared students may soon be achieved.

NE:sbs

The Academic and Remedial Placement Profile
of Students Entering B.C.C. in September, 1977
by Curriculum Group

This report describes the B.C.C. class entering in September, 1977 in terms of high school averages (general, English, mathematics, foreign language) and placements into pre-college level English, reading and mathematics courses, as well as enrollments in these courses. It also examines actual course registrations of enrolled students placed into, though not registered in, these remedial courses.

REMEDIAL PLACEMENTS AND ENROLLMENTS (English and Reading)

Table 1 shows the distribution of remedial placements into English and reading, for 16 curriculum areas since the Fall, 1971.* These students, while having been assigned matriculation codes, may not have registered at B.C.C. Therefore, these tables are of interest mainly in the comparison of the distribution of placements in previous years with the current class' distribution, regardless of actual subsequent enrollment. Actual enrollments of freshmen are seen in Table 2.

---

*The table reflects the placement only of students who actually enrolled in the College. The data generally underestimate the actual proportions placed, even of enrolled students, since many students appear on the Computer Center placement tapes without their students numbers, and hence are not included in this Placement Profile.

Table 1. Trend in the proportions of entering and enrolled freshmen recommended for remedial placement in Reading-English, Fall semesters 1971-1977. *

Curriculum	Reading - English 1971	1972	1973	1974	1975	1976	1977
Business Accounting	.66	.81	.72	.72	.81	.64	.78
Business Retail	.59	.60	.61	.63	.73	.51	.64
Business Secretarial	.54	.74	.67	.77	.79	.83	.79
Data Processing	.67	.79	.69	.76	.83	.71	.77
Chemical Technology	.66	.84	---	.75	.84	---	---
Medical Lab Technology	.76	.68	.41	.73	.77	.78	---
Plastics Technology	.71	.60	---	.57	---	---	---
Mechanical Technology	.75	.76	.54	.63	.83	.88	.71
Electrical Technology	.67	.74	.58	.72	.75	.75	.66
Nursing/Pre-Nursing	.68	.57	.42	.76	.78	.78	.69
Liberal Arts	.53	.69	.66	.78	.76	.72	.68
Engineering Science	.71	.70	.43	.76	.78	.75	.64
Business Administration	.66	.73	.70	.68	.76	.66	.77
Pre-Pharmacy	.56	.66	.52	.74	.78	.86	.67
Music & Perf. Arts	.41	.56	.50	.67	.64	.89	.70
Education Associate	---	---	---	---	.85	.80	.74
Other or Undecided	---	---	.55	.76	.76	.46	.62
All Curriculums	.60	.72	.63	.74	.78	.70	.71

* Tables 1 and 3 give under-estimates of the true proportions of entering, enrolled, freshmen placed into remedial reading, English or mathematics, as the proportions ignore approximately several hundred students, placed into remedial courses, whose student numbers were unavailable at the time of this analysis, thus preventing definite identification as freshmen.

Table 2. Proportions of freshmen enrolled in remedial Reading-English, Fall semesesters since 1972.

Curriculum	1972	1973	1974	1975	1976	1977
Business Accounting	.58	.50	.43	.64	.61	.65
Business Retail	.32	.50	.51	.51	.79	.52
Business Secretarial	.57	.54	.46	.62	.77	.68
Data Processing	.63	.64	.55	.66	.64	.74
Medical Lab. Tech.	.50	.36	.57	.57	.72	--
Mechanical Tech.	.64	.44	.47	.49	.72	.47
Electrical Tech.	.52	.38	.48	.56	.65	.63
Nursing/Pre-Nursing	.45	.36	.70	.60	.74	.62
Liberal Arts	.55	.50	.43	.47	.66	.59
Engineering Science	.50	.33	.39	.61	.70	.51
Bus. Administration	.49	.56	.45	.46	.66	.70
Pre-Pharmacy	.40	.44	.45	.57	.69	.51
Music & Perf. Arts	.44	.33	.39	--	.73	.61
Education Associate	--	--	--	.50	.77	.68
Other or Undecided	--	--	--	--	--	.23
All Curriculums	--	.47	.47	.54	.69	.62

Table 1 shows that, as was true last year, almost three out of four identifiable students applying to B.C.C. for Fall, 1977 admission, who took placement tests in the Reading-English area, and who subsequently enrolled at the College, were recommended for at least one remedial course in this area. Table 5 shows that 24% were recommended for placement into both a remedial reading and a remedial English (writing) course, a decline of 9% from last year, of 18% from 1975, and of 20% from 1974. In addition, Table 5 shows a sharp rise in the proportion of students placed only into English 01 or 02 (from 11% last year to 25% this year). These are students who were not also found to be deficient in reading, at least not sufficiently by current standards to have warranted placement into remedial reading.

Actual enrollments of freshmen in remedial Reading-English courses are shown in Tables 2 and 6. It can be seen that 62% of the students are actually enrolled in one of the remedial English-Reading courses, slightly less than the proportion placed. However, the total remedial English-Reading enrollment proportion for the Fall 1977 entering class, while slightly lower than last year, is markedly higher than the proportions for the three classes entering in the Fall of 1973, 1974, and 1975.

If the mean proportion, plus and minus .05, is taken as the "average" range of proportions across all curriculum groups, the groupings on page 5 show which curricula fall within this "average" range, and which are higher or lower. The groupings reveal that the business secretarial and education associate curriculums continue to show higher than average proportions of students taking remediation in the Reading-English area. In addition, higher than average proportions of students in business administration and data processing also

Distribution of curriculum areas according to proportions of students enrolled in remedial Reading-English.

< .57	Mean p $\pm$ .05 .57 - .67	> .67
Mechanical Tech. (.47)	Liberal Arts (.59)	Business Secretarial (.68)
Engineering Science (.51)	Music & Perf. Arts (.61)	Ed. Associate (.68)
Pre-Pharmacy (.51)	Pre-Nursing (.62)	Business Administration (.70)
Business Retail (.52)	Electrical Tech. (.63)	Data Processing (.74)
	Business Accounting (.65)	

are enrolled in remedial classes in these areas. By contrast, students in three technical areas (mechanical technology, engineering science, pre-pharmacy) and in retail marketing show a lower than average enrollment in these remedial areas.

Over the six entering classes since the Fall of 1972, the proportions of students in the various curricula enrolled in one or more remedial Reading-English courses are shown in Table 2.

Intercorrelating the six columns in Table 2 yields a Coefficient of Concordance (W) of .25 (exactly that of last year) indicating only a weak consistency in the proportions of remedial Reading-English enrollments among curricula, from 1972 to 1977.

REMEDIAL PLACEMENTS AND ENROLLMENTS (Mathematics)

Table 3 shows that approximately 1 out of 2 registered freshmen (for whom student numbers were available) was placed into a remedial mathematics section, a significant drop in the proportion as compared with last year (approximately 2 out of 3).*

Actual enrollments in remedial mathematics classes are shown in Tables 4 and 6. Here again, as in the case of placement, a significant decline is seen in the proportion of entering freshmen enrolled in remedial mathematics courses, as compared with last year. The proportion enrolled is seen to be slightly less than the proportioned placed (.41 and .46 respectively).

---

* However, statistics may be somewhat unreliable because of varying numbers of students who are excluded from our analysis due to the unavailability of student numbers. The actual proportion placed is probably somewhat higher.

Table 3. Trend in the proportions of entering and enrolled freshmen recommended for remedial placement in Mathematics, Fall semesters 1971-1977.*

Curriculum	Mathematics 1971	1972	1973	1974	1975	1976	1977
Business Accounting	.57	.51	.61	--	.74	.57	.52
Business Retail	.47	.50	.79	--	.82	.67	.50
Business Secretarial	.51	.51	.57	--	.71	.55	.43
Data Processing	.45	.40	.52	--	.71	.49	.39
Chemical Technology	.33	.52	--	--	.79	--	--
Medical Lab Technology	.73	.62	.74	--	.72	.69	--
Plastics Technology	.55	.73	--	--	--	--	--
Mechanical Technology	.70	.56	.79	--	.74	.78	.37
Electrical Technology	.70	.62	.68	--	.76	.55	.52
Nursing/Pre-Nursing	--	.01	.04	--	.05	.81	.48
Liberal Arts	.65	.64	.58	--	.74	.60	.49
Engineering Science	.56	.48	.58	--	.64	.58	.43
Business Administration	.66	.66	.71	--	.78	.58	.48
Pre-Pharmacy	.69	.43	.68	--	.80	.65	.47
Music & Perf. Arts	.29	.39	.25	--	.81	.53	.31
Education Associate	---	---	---	--	.84	.74	.46
Other or Undecided	---	---	.44	--	.68	.80	.43
All Curriculums	.56	.54	.57	--	.68	.64	.46

* See footnote on Table 1.

Table 4. Proportions of freshmen enrolled in resedial Mathematics, Fall semesters since 1972.

Curriculum	1972	1973	1974	1975	1976	1977
Business Accounting	.52	.37	.30	.24	.53	.34
Business Retail	.23	.46	.24	.25	.67	.40
Business Secretarial	.35	.17	.24	.11	.50	.29
Data Processing	.33	.40	.34	.25	.57	.40
Chemical Technology	--	--	--	.32	--	--
Medical Lab Technology	.57	.62	.60	.52	.64	--
Mechanical Technology	.56	.72	.48	.49	.58	.37
Electrical Technology	.60	.69	.53	.50	.71	.51
Nursing/Pre-Nursing	.03	.25	.47	--	.62	.48
Liberal Arts	.44	.39	.25	.28	.63	.40
Engineering Science	.52	.55	.54	.54	.59	.49
Business Administ.	.48	.41	.33	.21	.62	.42
Pre-Pharmacy	.43	.58	.53	.53	.74	.53
Education Associate	--	--	--	.30	.59	.51
Other or Undecided	--	--	--	--	--	.23
All Curriculums	--	.40	.32	.29	.60	.41

Table 5. Distribution of Remedial Placements in English, Reading, and Mathematics of students enrolled in the College, by Curriculum (matriculated students).

(Numbers are percents)

Curriculums	ENG 01 only	ENG 02 only	RDL 01 only	RDL 02 only	ENG 01/02 & RDL 01/02	MTH 05	MTH 06	OTHER	Total (Unique) N
Bus. Acctg.	13	11	11	12	31	46	6	12	165
Bus. Retail	6	14	8	8	28	50	0	19	36
Bus. Sec'l.	9	13	15	17	25	43	0	12	236
Data Proc.	10	14	8	12	33	37	2	12	110
Chem. Tech.	-	-	-	-	-	-	-	-	2
Mech. Tech.	17	4	17	4	29	33	4	25	24
Electric Tech.	17	10	5	7	27	45	7	20	115
Nursing/ Pre-Nursing	13	11	9	10	26	48	0	15	292
Liberal Arts	13	14	9	10	22	41	8	17	425
Engin'g Sci.	15	8	11	10	20	32	11	18	87
Bus. Adm.	16	10	9	18	24	45	3	13	148
Pre-Pharmacy	7	7	10	10	33	40	7	17	30
Music & P.A.	14	14	6	11	25	31	0	17	36
Ed. Assoc.	11	13	8	14	28	43	3	13	79
Undecided/ Other	13	16	8	11	14	41	2	16	215
All Curriculums N	255	247	192	235	489	849	78	306	2000
P	13	12	10	12	24	42	4	15	

* Students may enter into both Mathematics and English-Reading statistics. These students may not actually be enrolled in the courses into which they were placed.

Table 6. Distribution of Remedial Enrollments in English, Reading, and Mathematics by Curriculum, for entering matriculated students.*

(Numbers are percents)

Curriculums	ENG 01 only	ENG 02 only	RDL 01 only	RDL 02 only	ENG 01/02 & RDL 01/02	MTH 05	MTH 06	OTHER	Total (Unique) N
Bus. Acctg.	9	8	10	12	26	30	4	27	209
Bus. Retail	5	14	7	14	12	40	0	26	42
Bus. Sec'l.	6	9	16	16	21	29	0	23	286
Data Proc.	6	12	11	14	31	39	1	20	143
Chem. Tech.	-	-	-	-	-	-	-	-	2
Mech. Tech.	3	9	13	13	9	28	9	34	32
Electric Tech.	11	5	13	13	21	46	5	21	134
Nursing/ Pre-Nursing	6	8	9	12	27	48	0	22	386
Liberal Arts	11	10	9	12	17	33	7	27	669
Engin'g Sci.	12	7	11	10	11	37	12	23	98
Bus. Adm.	9	11	13	14	23	38	4	18	207
Pre-Pharmacy	13	15	5	13	5	50	3	23	40
Music & P.A.	9	15	2	11	24	30	0	26	46
Edu. Assoc.	14	11	10	15	18	45	6	17	100
Undecided/ Other	0	5	9	9	0	18	5	68	22
All Curriculums N	217	228	252	313	506	898	95	581	2418#
p	9	9	10	13	21	37	4	24	

* Students may enter into both Mathematics and English-Reading statistics.

Total is larger than total in Table 1 because this table includes students who may not have taken placement examinations, or who for some other reason do not appear on the placement tape.

If the curriculum groups are sorted into three groups (average, below average, above average) as was done for the Reading-English enrollments above, the groupings on Page 12 emerge for enrollments in remedial mathematics courses.

During the period 1972-1975 it was observed that all of the curriculums in the "above average" group (curriculums having higher than "average" proportions of remedial enrollments) were technical in nature, and it was thought that this reflected more stringent requirements in these areas. Last year it was observed that almost every curriculum group enrolled higher proportions of students in remedial mathematics than the highest proportion for any curriculum for the previous year (1975). This year we see a reversion to a more "normal" pattern, with students in four out of six "technical" curriculum groups showing higher than average proportions enrolled in remedial mathematics courses. In contrast, three curriculum groups (business secretarial, business accounting, music) continue to show the lowest proportions of students in remedial mathematics.

Intercorrelating the six columns of Table 4 yields a Coefficient of Concordance (W) of .68 (almost exactly that of last year) indicating a modestly strong degree of consistency in the proportions of remedial mathematics enrollments among curricula, from 1972 to 1977.

Distribution of curriculum areas according to proportions of students enrolled in remedial Mathematics

< .36	Mean ± .05 .36 - .46	> .46
Business Secretarial (.29)	Mechanical Tech. (.37)	Pre-Nursing (.48)
Music & Perf. Arts (.30)	Business Retail (.40)	Engineering Science (.49)
Business Accounting (.34)	Data Processing (.40)	Electrical Tech. (.51)
	Liberal Arts (.40)	Education Associate (.51)
	Business Administration (.42)	Pre-Pharmacy (.53)

PLACEMENT-ENROLLMENT DISCREPANCIES

While there are well over 1,500 entering matriculated students who are enrolled in some kind of remedial course, there is still a considerable number of entering matriculated students who were placed into remedial courses, but who took college level courses without taking the remedial courses assigned. The extent of this situation for the Fall, 1977 entering class is shown in Table 7. This table shows, for example, that of 488 students who were placed into either a remedial English or remedial reading course or both, 54 enrolled in History (11) or (12), 46 in Psychology or Sociology (11), and 59 enro. ed in English 13, without taking the remedial course(es) assigned. (These are not actually exclusive students, that is, a student with the remediation need specified could be enrolled in more than one college-level course.) The figures are somewhat larger this year than last year in history but lower in English and sociology. It is seen that 23 students who should have been excluded from English 13 specifically for failing to meet entry level writing requirements were, in fact, enrolled in the college-level English course, about the same number as for the past two previous years. In mathematics, only 10 students requiring a remedial mathematics course actually enrolled in a college-level mathematics course. Last year 27 such students were identified. In general, the number of students not taking remedial courses required, but taking college level courses, has markedly declined in comparison with last year.

To restate a point made last year, the large number of students requiring remediation who were, never-the-less, enrolled in college-level courses over recent years resulted in a study designed to follow up the success or

Table 7. Enrolled students with verifiable Fall, 1977 student numbers placed into, but not taking remedial courses; and some courses they are taking.

	RDL 01 (58)	RDL 02 (72)	ENG 01 (79)	ENG C2(61)	Any ENG Any RDL (212)	TOTAL(488)	MTH 05(308)	MTH 06(40)	TOTAL (348)
ACC 11	1	2	5	6	4	18	13	3	16
BIO 11	1	1	2	4	5	13	6	5	11
18	0	1	1	1	1	4	4	0	4
BUS 11	1	5	2	6	18	32	19	6	25
CMS 11	9	32	17	20	83	161	119	13	132
CHM 11	0	0	0	2	3	5	0	1	1
ECO 11	0	1	2	0	1	4	4	1	5
ELC 11	0	1	0	0	0	1	0	0	0
ENG 13	6	30	3	14	6	59	80	16	96
FRN 11	0	1	3	0	2	6	1	0	1
HIS 11	0	1	3	0	1	5	4	0	4
12	1	14	11	9	14	49	40	11	51
MTh 11	0	2	2	2	2	8	4	0	4
16	0	0	0	1	2	3	1	1	2
17	0	0	0	0	0	0	0	0	0
30	0	2	4	1	3	10	0	0	0
MEC 11	0	1	2	1	3	7	1	0	1
PUL 11	0	0	0	1	1	2	1	0	1
SOC 11	0	6	2	1	9	18	19	5	24
PSY 11	2	8	7	7	4	28	31	1	32
SPN 11	1	5	10	8	14	38	28	2	30
OTHER	180	179	222	169	626	1376	882	113	995
TOTAL*	202	292	298	253	802	1847	1257	178	1435

*Students may be enrolled in more than one regular course. The N for unique students is shown in parenthesis after remedial course designation.

failure of these students in their college-level courses. This study, not designed to evaluate the effectiveness of remedial programs, found that even without remediation significant proportions of students earn grades of C or higher in some college level courses, while other college level courses yield lower proportions of C or higher grades for these students. In the absence of performance-grade standards the significance of this finding is not clear. A longitudinal study of the history of students who require remediation but either avoid it or do not receive it, compared with comparable students who do take the recommended remediation, may be indicated.

HIGH SCHOOL AVERAGES

The proportions of students at five levels of three-year high school averages, for general academic average, English, mathematics and foreign languages, are shown in Tables 8-11. Only English and mathematics will be subjected to further analysis in this report.

When the curriculum groups are distributed among the three classification categories used above for enrollments in remedial Reading-English and in remedial mathematics courses, the following groupings from Table 9 occur for the proportion of students entering the College with three year English averages below 70% (excluding curriculum groups of inadequate size):

Distribution of curriculum areas according to proportions of students earning high school averages less than 70% in English.
(Registered Freshmen)

< .17	Mean p $\pm$ .05 .17 - .27	> .27
Mechanical Tech. (.05)	Pre-Nursing (.18)	Electrical Tech. (.32)
Pre-Pharmacy (.12)	Education Associate (.22)	
Bus. Secretarial (.15)	Liberal Arts (.24)	
Business Retail (.15)	Bus. Administration (.24)	
	Music & Perf. Arts (.26)	
	Bus. Accounting (.26)	
	Data Processing (.27)	
	Engineering Science (.27)	

It may be seen that the over all proportion of enrolled new students with high school averages in English below 70% is somewhat lower (.22) than the proportions for last three previous entering classes (.34, .38, and .31 respectively), reflecting the more rigorous entry requirements in force this year and last. The proportion of students entering with high school English averages below 70% is now at its lowest point since the start of Open Admissions and nearly half of the proportion in 1974 when 37% of the entering students had English averages less than 70%. For the fifth consecutive year, the business secretarial curriculum group continues to show a lower than average proportion of students earning averages of less than 70% in high school English, while the four-year tendency for retail business marketing and mechanical technology students to earn higher than average proportions (poorer performance) is not seen this year.

As has been true in previous years, there appears to be little relationship among curriculum groups, between the proportions of registered students earning high school averages below 70% in English, and the proportions of students enrolled in remedial English or Reading courses. The actual correlation for this year's class is +.36.

With regard to high school mathematics, the groupings on Page 18 for proportions of averages below 70% are taken from Table 10 (excluding curriculum groups of inadequate size).

Distribution of curriculum areas according to proportions
of students earning high school averages less than 70% in mathematics.
(Registered Freshmen)

< .51	Mean p $\pm$ .05 .51 - .61	> .61
Pre-Pharmacy (.44)	Business Accounting (.54)	Education Associate (.67)
Electrical Tech (.45)	Bus. Administration (.56)	Business Retail (.75)
Data Processing (.49)	Bus. Secretarial (.59)	Music & Perf. Arts (.78)
Pre-Nursing (.50)	Liberal Arts (.60)	
Engineering Science (.50)	Mechanical Tech. (.60)	

Over all curriculum areas it can be seen that whereas 56% of all enrolled entering freshmen received high school mathematics grades below 70% (Table 10), 41% are seen to be actually enrolled in remedial mathematics classes (Table 4). This appears to be a reversal of the situation last year when it was reported that the proportion of students enrolled in remedial classes was somewhat higher than the proportion earning high school mathematics averages below 70%. It may also be seen that all of the technical curriculae (with the exception of mechanical technology) show the lowest proportions of students with high school mathematics averages under 70%. Nevertheless, even among these technical curriculae percentages of students having high school mathematics averages less than 70% range between 44% and 50%. Again, as last year, retail management and education associate students are among the three groups having the highest proportions of high school mathematics averages below 70%.

The correlation, among curriculum groups, between the proportions of students earning high school mathematics averages less than 70%, and the proportions of students enrolled in remedial mathematics courses, is $-.65$, significantly different from the zero correlation noted last year. This negative correlation is due mainly to rank order reversals in the education associate, mechanical technology, and business retail curriculum areas, where relatively high proportions of high school mathematics averages below 70% are matched with relatively low proportions of remedial mathematics enrollments.

Table 12 presents a seven year record of the proportions of students recommended to B.C.C. by the University Applications Processing Center (U.A.P.C.) with three year high school averages below 70% in three academic areas and in

the three year general academic average. It is clearly evident that since the end of open admissions and the implementation of progress standards during the 1976-77 academic year, the proportions of severely underprepared students (high school averages below 70%) have declined in three out of the four academic categories shown. Paradoxically, despite these generally lower proportions compared with the open admissions years, this year's proportions are slightly higher than last year's, with the exception of the English average. The somewhat lower proportion in English assigned by the U.A.P.C. to the college (.20) as compared with last year (.27) is reflected in a lower proportion of students enrolled with high school English averages below 70% (.22 vs .31). Likewise the slightly higher proportion in mathematics assigned by the U.A.P.C. to the college (.47 vs .51) is reflected in a slightly higher proportion of students enrolled with high school mathematics averages below 70% (.53 vs .56). However, as was noted last year, the apparent improvement in the academic "quality" of students enrolled at B.C.C. since the Fall of 1975 is in marked contrast to the fact that for the entire period of open admissions this college had consistently enrolled the highest proportion of academically underprepared students of any college in C.U.N.Y., with only a few scattered exceptions throughout the period. While there is evidence that this situation may now be changing, the apparent improvement in student preparation should also not obscure the fact that significantly more than half of B.C.C.'s entering students continue to require massive amounts of remedial or developmental (pre-college level) instruction on entrance into the College.

Table 8. Distribution of 3 Year High School General Averages for September, 1977. Registered Freshmen (Matrics and Non Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	185	9	.07	33	.26	51	.40	26	.21	7	.06	59
Business Retail	39	3	.10	5	.17	10	.33	8	.27	4	.13	9
Business Sec'l	256	17	.09	31	.17	58	.32	43	.23	34	.19	73
Data Processing	123	9	.11	12	.14	38	.45	15	.18	11	.13	38
Chem. Tech.	2	2	1.00	-	-	-	-	-	-	-	-	-
Med. Lab. Tech.	4	-	-	-	-	-	-	-	-	-	-	1
Mechanical Tech.	24	-	-	4	.20	12	.60	4	.20	-	-	4
Electrical Tech.	119	12	.14	13	.15	37	.43	14	.10	10	.12	33
Pre-Nursing	348	14	.07	39	.19	95	.45	32	.15	30	.14	138
Liberal Arts & Sci.	599	30	.09	76	.22	183	.53	40	.12	18	.05	252
Engineering Sci.	83	3	.05	17	.26	26	.40	13	.20	6	.09	18
Bus. Administ.	180	11	.10	24	.21	54	.47	12	.11	13	.11	66
Pre-Pharmacy	39	3	.10	3	.10	10	.33	10	.33	4	.13	9
Music & P.A.	45	4	.13	7	.22	14	.44	6	.19	1	.03	13
Edu. Associate	91	7	.13	18	.32	22	.39	8	.14	1	.02	35
Undecided/ or Other	62	7	.39	1	.06	7	.39	3	.17	-	-	44
All Curriculums	2199	131	.10	283	.20	619	.44	235	.17	139	.10	792

Note: Percentages are Ns divided by Total N minus Unknown.

Table 9. Distribution of 3 Year High School English Averages for September, 1977
Registered Freshmen (Matrics and Non-Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	185	12	.10	20	.16	48	.39	31	.25	11	.09	63
Business Retail	39	1	.04	3	.11	10	.36	9	.32	5	.18	11
Business Sec'l	256	11	.07	13	.08	51	.32	35	.22	50	.31	96
Data Processing	123	12	.15	10	.12	28	.34	16	.20	16	.20	41
Chem. Tech.	2	-	-	-	-	-	-	-	-	-	-	2
Med. Lab. Tech.	4	-	-	-	-	1	.33	1	.33	1	.33	1
Mechanical Tech.	24	-	-	1	.05	14	.74	4	.21	-	-	5
Electrical Tech.	119	10	.12	16	.20	21	.28	13	.16	11	.14	38
Pre-Nursing	348	15	.08	18	.10	84	.44	37	.20	35	.19	159
Liberal Arts & Sci.	599	33	.10	45	.14	156	.48	51	.16	40	.12	274
Engineering Sci.	83	4	.06	13	.21	24	.38	14	.22	8	.13	20
Bus. Administ.	180	14	.13	12	.11	49	.46	16	.15	15	.14	74
Pre-Pharmacy	39	1	.04	2	.08	8	.31	8	.31	7	.27	13
Music & P.A.	45	4	.13	4	.13	11	.35	6	.19	6	.19	14
Edu. Associate	91	5	.10	6	.12	24	.48	9	.18	6	.12	41
Undecided/ or Other	62	-	-	-	-	-	-	-	-	-	-	62
All Curriculums	2199	122	.09	163	.13	539	.42	250	.19	211	.16	914

Note: Percentages are Ns divided by Total N minus Unknown.

Table 10. Distribution of 3 Year High School Mathematics Averages for September, 1977 Registered Freshmen (Matrics and Non Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	185	24	.32	17	.22	17	.22	9	.12	9	.12	109
Business Retail	39	4	.39	5	.42	2	.17	1	.08	-	-	27
Business Sec'l	256	33	.35	23	.24	18	.19	9	.09	12	.13	161
Data Processing	123	18	.37	6	.12	6	.12	11	.22	8	.16	74
Chem. Tech.	2	-	-	-	-	-	-	-	-	-	-	2
Med. Lab. Tech.	4	-	-	1	-	-	-	-	-	-	-	3
Mechanical Tech.	24	2	.20	4	.40	2	.20	2	.20	-	-	14
Electrical Tech.	119	8	.17	13	.28	14	.30	5	.11	7	.15	72
Pre-Nursing	348	25	.29	18	.21	18	.21	9	.11	15	.18	263
Liberal Arts & Sci.	599	80	.43	31	.17	33	.18	21	.11	19	.10	415
Engineering Sci.	83	7	.19	11	.31	7	.19	4	.11	7	.19	47
Bus. Administ.	180	20	.34	13	.22	13	.22	8	.14	5	.08	121
Pre-Pharmacy	39	6	.33	2	.11	5	.28	3	.17	2	.11	21
Music & P.A.	45	9	.50	5	.28	2	.11	2	.11	-	-	27
Edu. Associate	91	15	.56	3	.11	5	.19	-	-	4	.15	64
Undecided/ or Other	62	-	-	-	-	-	-	-	-	-	-	62
All Curriculums	2199	251	.35	152	.21	142	.20	84	.12	88	.12	1482

Note: Percentages are Ns divided by Total N minus Unknown.

Table 11. Distribution of 3 Year High School Foreign Language Averages for September, 1977 Registered Freshmen (Matrics and Non Matrics).

Curriculums	Total N	Below 65 N	Below 65 p	65 - 69 N	65 - 69 p	70 - 74 N	70 - 74 p	75 - 79 N	75 - 79 p	80+ N	80+ p	Unknown
Business Accounting	185	10	.17	15	.25	8	.13	13	.22	14	.23	125
Business Retail	39	2	.17	3	.25	1	.08	3	.25	3	.25	27
Business Sec'l	256	22	.21	14	.14	13	.13	12	.12	42	.41	153
Data Processing	123	13	.30	7	.16	7	.16	8	.19	8	.19	80
Chem. Tech.	2	-	-	-	-	-	-	-	-	-	-	2
Med. Lab. Tech.	4	-	-	-	-	2	-	-	-	-	-	2
Mechanical Tech.	24	1	.13	1	.13	4	.50	2	.25	-	-	16
Electrical Tech.	119	12	.35	6	.18	7	.21	7	.21	2	.06	85
Pre-Nursing	348	24	.29	10	.12	12	.14	13	.16	24	.29	265
Liberal Arts & Sci.	599	48	.28	39	.23	24	.14	21	.12	37	.22	430
Engineering Sci.	83	9	.30	5	.17	4	.13	7	.23	5	.17	53
Bus. Administ.	180	12	.20	13	.22	12	.20	8	.14	14	.24	121
Pre-Pharmacy	39	5	.28	-	-	4	.22	3	.17	6	.33	21
Music & P.A.	45	6	.38	3	.19	2	.13	5	.31	-	-	29
Edu. Associate	91	10	.31	5	.16	6	.19	2	.06	9	.28	59
Undecided/ or Other	62	-	-	-	-	-	-	-	-	-	-	62
All Curriculums	2199	174	.26	121	.18	106	.16	104	.16	164	.25	1530

Note: Percentages are Ns divided by Total N minus Unknown.

Table 12. Comparisons of proportions of high school averages below 70% for students recommended to B.C.C. by the University Applications Processing Center, September 1971 to September 1977.

	1971	1972	1973	1974	1975	1976	1977
3 year General Average	.47	.38	.39	.45	.43	.22	.26
3 year English Average	.32	.27	.30	.37	.37	.27	.20
3 year Mathematics Average	.61	.59	.56	.54	.51	.47	.51
3 year Foreign Language Average	.45	.43	.42	.41	.38	.34	.38

UNIVERSITY OF CALIF.
LOS ANGELES

FEB 10 1978

CLEARINGHOUSE FOR
JUNIOR COLLEGES